

**TRANSLATION**

**PATENT COOPERATION TREATY**

**PCT**

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**  
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference	<b>FOR FURTHER ACTION</b>		See Form PCT/IPEA/416
International application No. <b>PCT/RU2004/000479</b>	International filing date (day/month/year) <b>26.11.2004</b>	Priority date (day/month/year) <b>13.01.2004</b>	
International Patent Classification (IPC) or national classification and IPC <b>F16B5/07</b>			
Applicant <b>KUZNETSOVA, Elena Yurievna</b>			

<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of _____ sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> (<i>sent to the applicant and to the International Bureau</i>) a total of _____ sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (<i>sent to the International Bureau only</i>) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/RU	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/RU2004/000479

## Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

This report is based on translations from the original language into the following language \_\_\_\_\_ which is the language of a translation furnished for the purposes of:

- international search (Rule 12.3 and 23.1(b))
- publication of the international application (Rule 12.4)
- international preliminary examination (Rule 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

the international application as originally filed/furnished

the description:  
pages \_\_\_\_\_ as originally filed/furnished  
pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

the claims:  
nos. \_\_\_\_\_ as originally filed/furnished  
nos.\* \_\_\_\_\_ as amended (together with any statement) under Article 19  
nos.\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
nos.\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

the drawings:  
sheets \_\_\_\_\_ as originally filed/furnished  
sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3.  The amendments have resulted in the cancellation of:

- the description, pages \_\_\_\_\_
- the claims, nos. \_\_\_\_\_
- the drawings, sheets/figs \_\_\_\_\_
- the sequence listing (*specify*): \_\_\_\_\_
- any table(s) related to sequence listing (*specify*): \_\_\_\_\_

4.  This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- the description, pages \_\_\_\_\_
- the claims, nos. \_\_\_\_\_
- the drawings, sheets/figs \_\_\_\_\_
- the sequence listing (*specify*): \_\_\_\_\_
- any table(s) related to sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.  
PCT/RU2004/000479

Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement																										
<p>1. Statement</p> <table> <tr> <td>Novelty (N)</td> <td>Claims</td> <td>1-3</td> <td>YES</td> </tr> <tr> <td></td> <td>Claims</td> <td></td> <td>NO</td> </tr> <tr> <td>Inventive step (IS)</td> <td>Claims</td> <td>1-3</td> <td>YES</td> </tr> <tr> <td></td> <td>Claims</td> <td></td> <td>NO</td> </tr> <tr> <td>Industrial applicability (IA)</td> <td>Claims</td> <td>1-3</td> <td>YES</td> </tr> <tr> <td></td> <td>Claims</td> <td>5</td> <td>NO</td> </tr> </table>				Novelty (N)	Claims	1-3	YES		Claims		NO	Inventive step (IS)	Claims	1-3	YES		Claims		NO	Industrial applicability (IA)	Claims	1-3	YES		Claims	5	NO
Novelty (N)	Claims	1-3	YES																								
	Claims		NO																								
Inventive step (IS)	Claims	1-3	YES																								
	Claims		NO																								
Industrial applicability (IA)	Claims	1-3	YES																								
	Claims	5	NO																								
<p>2. Citations and explanations (Rule 70.7)</p> <p>Reference is made to the following documents:</p> <p>D1: US 5588240 A  D2: SU 1624218 A1  D3: US 3825360 A  D4: FR 2815678 A1</p> <p>The prior art closest to the invention according to claim 1 is the joint for connecting flat rigid parts, which comprises projections, embodied on the sides of the parts to be interlinked and having bulb-like broadenings on the ends and necks at their bases, and slots answering thereto, consisting of bulb-shaped indents, corresponding to the bulb-shaped broadenings of the projections, which pass into grooves corresponding to the necks of the projections (figures 1, 2A, 7, 8A, 8B, 8C, 8D).</p> <p>The claimed joint differs from the prior art disclosed in D1 in that the surfaces of the projection ends and the surfaces of the face of the slots interlinking therewith are conical, the peaks of the conical surfaces of the ends of the projections, and of the face of the indents, being located on different sides with respect to the</p>																											

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

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Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

parts to be connected.

From D2 is known a connection joint for flat parts, which comprises projections embodied on the sides to be interlinked, having broadenings on the ends and necks at their bases, and slots answering thereto, consisting of indents corresponding to the broadenings of the projections, passing into grooves corresponding to the necks of the projections; the surfaces of the projection ends and the surfaces of the face of the slots interlinked therewith are cut aslant (figures 1, 6).

However, D2-D4 do not disclose the following features of claim 1: "the surfaces of the projection ends and the surfaces of the face of the slots interlinked therewith are conical, the peaks of the conical surfaces of the projection ends and face of the indents are located on different sides in respect of the parts to be connected", which, in combination with the known features, ensure the flat connected parts work reliably, namely work in tension, in bending (in one direction), and in shear in a direction perpendicular to the plane of the parts to be connected, which is not obvious. Therefore, claim 1 and dependent claims 2-3 meet the requirement of novelty and inventive step.

Claims 1-3 meet the requirement of industrial applicability.